
Pavonia serrana (Malvaceae), a New Species from the State of Minas Gerais, Brazil

Gerleni Lopes Esteves

Instituto de Botânica de São Paulo, CP 4005 01061-970, São Paulo, SP, Brazil

ABSTRACT. A new species of Malvaceae, *Pavonia serrana* G. L. Esteves, is described and illustrated. This species is known only from the Serra da Canastra, Municipality of Botumirim, State of Minas Gerais, Brazil. It is closely related to *P. grazielae* Krapovickas, also from that state. The affinities of the two taxa are discussed.

The genus *Pavonia* Cavanilles includes more than 250 species. In the New World, these species range from the southern United States, through Central America and the Caribbean to South America, where more than half the species occur. The genus also is well represented in the Old World, particularly in Africa (Fryxell, 1979).

Pavonia is placed in the tribe Malvavisceae K. Presl, which is represented in Brazil by the genera *Malvaviscus* Fabricius, *Urena* L., *Malachra* L., *Peltaea* (Presl) Standley, and *Phragmocarpidium* Krapovickas. It may be distinguished from these by a set of characters: the absence of leaf nectaries, petals without auricles, mericarps without glochids, and the presence of an epicalyx with bracteoles that are not differentiated, morphologically or anatomically, into base and blade.

Study of this new species forms a part of the author's doctoral thesis on the species of *Pavonia* of northeastern and southeastern Brazil. This work is ongoing at the Instituto de Biociências of the Universidade de São Paulo, under the supervision of Ana Maria Giuliatti.

***Pavonia serrana* G. L. Esteves, sp. nov.** TYPE: Brazil. Minas Gerais: Botumirim, na saída da cidade, em direção à Cachoeira da Noruega, 15 June 1991, R. Mello-Silva et al. 518 (holotype, SPF; isotypes, SP, CTES). Figure 1.

Frutex 1.5–2 m altus. Indumentum densum, tomentoso-villosum, pilis stellatis longi 5–12 ramosis, pilis glanduliferis sparsis intermixtis compositum. Flores 2.9–4.5 cm longis; epicalyci bracteolae 4–6, orbiculares vel late ovatae, 2.4–3.5 cm longae, 1.5–3.0 cm latae, acutae vel obtusae, basi rotundatae vel profunde cordatae, 9–11 nervatae, marginibus integris pilis stellatis. Carpellum ovoideum, reticulatum, non aristatum, dehiscens. Semina laevia.

Shrub 1.5–2 m tall. Indument tomentose to villous, extremely dense and thick, composed of stellate pedunculate trichomes with 5–12 arms mixed with sparse glandular trichomes. Branches glabrescent at the base, wine-colored. Leaf blades 4.5–13.5 cm long, 5.8–11.5 cm wide, broadly ovate to suborbicular, frequently subtrilobate, acute at the apex, deeply cordate at the base, margins slightly serrate or entire, basal nerves 9–11; discolorous, the adaxial surface wine-colored to blackish, glabrescent, the abaxial surface densely velutinous with yellowish indument; petioles (2.2–)3.5–7 cm long; stipules linear-subulate. Flowers solitary, axillary, grouped at the ends of the branches where the leaves are fewer in number; pedicels slightly articulated 10–15 mm below the calyx; bracteoles of the epicalyx 4–6, 2.4–3.5 cm long, 1.5–3 cm broad, orbicular to broadly ovate, acute to obtuse at the apex, rounded to deeply cordate at the base, longitudinal nerves 9–11, margins entire, with stellate trichomes; calyx 1.8–2 cm in length, tubular to cup-shaped, shortly lobed; petals 2.9–4.5 cm long, 0.75–1.5 cm broad, narrowly obovate, yellow to red with yellow to red nerves, unguiculate, the claws adnate to the base of the staminal tube; staminal tube 3–4.2 cm long, twisted, 5-toothed at the apex, anthers 45–65, the filaments partly free at the distal end of the tube; styles 3.2–4.5 cm long. Mericarps trigonous, ovoid, venation reticulate, prominent except at points of contact, dehiscent; seeds smooth.

Pavonia serrana is characterized principally by the indument, which varies from tomentose to villous and is extremely dense and thick. It is composed of stellate pedunculate trichomes, with 5 to 12 arms, mixed with sparse glandular trichomes. Also distinctive is the epicalyx, formed by 4 to 6 orbiculate or broadly ovate bracteoles with 9 to 11 longitudinal nerves and margins entire, with stellate trichomes.

Pavonia serrana is so far known only from collections made in the Serra da Canastra, near Botumirim (northern Minas Gerais). In this region there are numerous populations in the *cerrados* at the foot of the *serra*, and rather fewer occurrences on the stony slopes higher up.

The species belongs to the group formed by *Pa-*

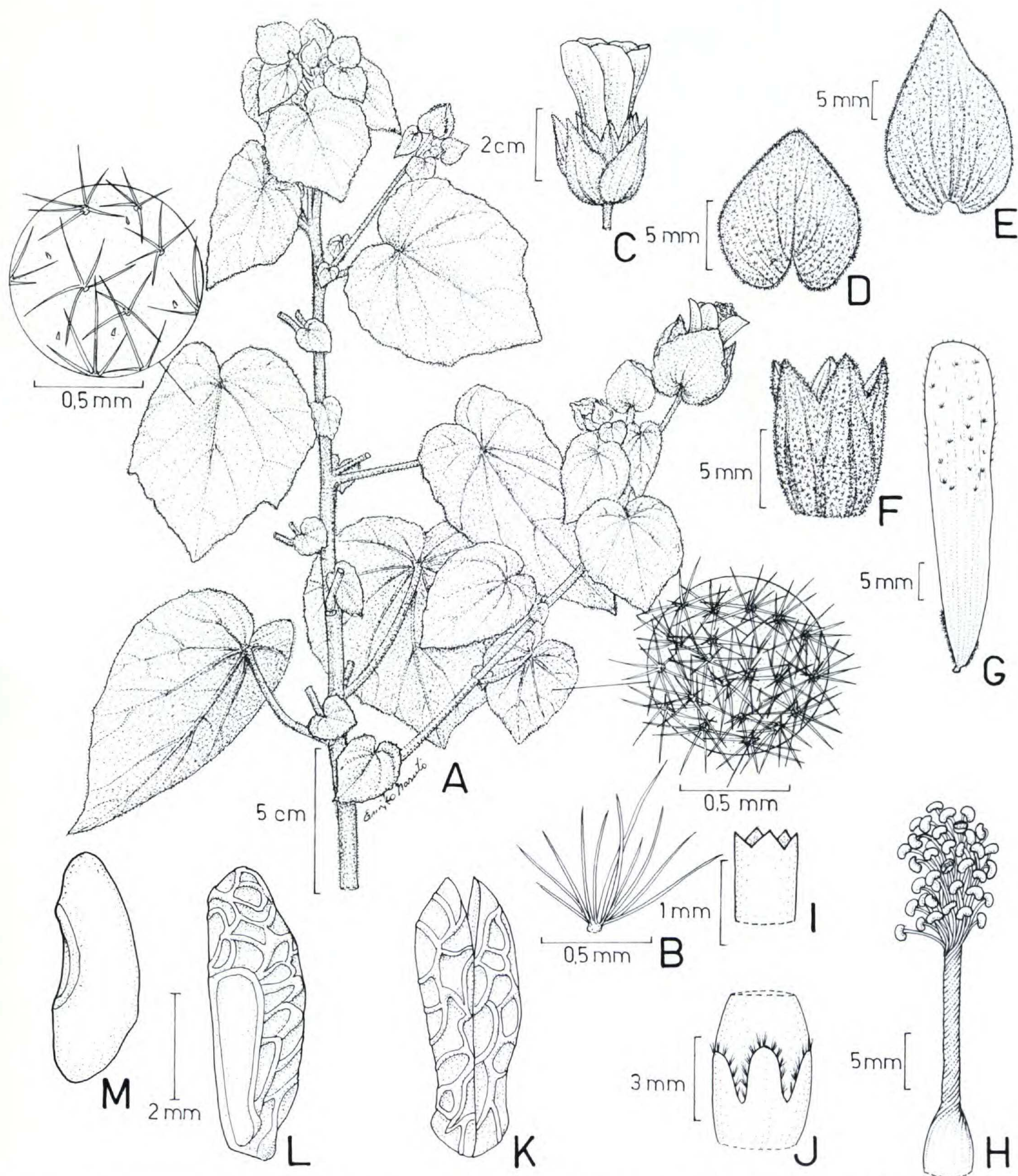


Figure 1. *Pavonia serrana* G. L. Esteves. —A. Habit. —B. Trichomes of leaf blade. —C. Flower. —D, E. Bracteoles of epicalyx. —F. Calyx. —G. Petal. —H. Staminal tube. —I. Apical portion of staminal tube. —J. Basal portion of staminal tube, showing point of contact between petals and tube. —K, L. Mericarps, dorsal and lateral views. —M. Seed.

vonio malvaviscoides St. Hilaire, *P. viscosa* St. Hilaire, *P. aschersoniana* Guerke, and *P. grazielae* Krapovickas. The group is characterized by the leaves, which are ovate to orbiculate and discolorous; by the tubular flowers, generally pendent and yellow to red in color; and by the non-aristate mericarps, with prominent reticulate veins and smooth seeds.

This group of species is endemic to forests and open stony habitats on mountains in the Espinhaço Range, State of Minas Gerais (Guerke, 1892; Krapovickas, 1978; Esteves, 1986).

Pavonia serrana is most closely related to *P. grazielae* Krapovickas, particularly in the number and form of the bracts of the epicalyx; it differs,

TABLE 1. Morphological comparison of *Pavonia grazielae* Krapovickas and *P. serrana* G. L. Esteves.

	<i>P. grazielae</i>	<i>P. serrana</i>
Stem indument	pubescent, mostly sparsely glandular trichomes	tomentose-villous, mostly stellate, forming a dense thick layer
Leaf length (cm)	4–10.5	4.5–13.5
Leaf width (cm)	3–7.5(–9.6)	5.8–11.5
Leaf margin	serrate to crenate	slightly serrate or smooth
Orientation of leaves	hanging	spreading
Petal length (cm)	2.5–3.8	2.9–4.5
Number of bracteoles	4–7	4–6
Bracteole length (cm)	1.6–2.7	2.4–3.5
Bracteole width (cm)	0.9–1.7	1.5–3
Bracteole shape	always ovate	orbiculate to broadly ovate
Number of nerves	7–9	9–11
Bracteole margins	entire, stellate, glandular and sparse simple trichomes	entire, stellate trichomes
Calyx trichomes	glandular, simple and stellate	glandular and stellate

however, principally in the indument, the leaves, and the flowers (see Table 1).

Paratype. BRAZIL. **Minas Gerais:** Botumirim. Tinoco, próximo à estrada para Itacambira, 15 June 1991, *R. Mello-Silva et al.* 500 (SP, SPF, CTES).

Literature Cited

Esteves, G. L. 1986. A Ordem Malvales na Serra do Cipó, Minas Gerais, Brasil. Dissertação de mestrado, Universidade de São Paulo.

Fryxell, P. 1979. Una revisión del género *Pavonia* en México. Bol. Soc. Bot. México 38: 7–34.
Guerke, M. 1892. Malvaceae II. In: C. F. P. Martius (editor), Flora Brasiliensis 12(3): 458–598, tabs. 81–114.
Krapovickas, A. 1978. Una nueva especie de *Pavonia* (Malvaceae) del estado de Minas Gerais, Brasil. Revista Brasil. Bot. 1: 89–91.